

NEOTROPICAL MONOGENEA. 10. *OMOTHECIUM*, NEW
GENUS (DACTYLOGYRIDAE: ANCYROCEPHALINAE)
AND TWO NEW SPECIES FROM THE PIRANAMBU,
PINIRAMPUS PINIRAMPU (SPIX), (SILURIFORMES),
IN BRAZIL

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Abstract.—*Omothecium*, new genus (Dactylogyridae: Ancyrocephalinae) is proposed for two new species (*O. pinirampi* [type] and *O. luckyi*) collected from the gills of the piranambu, *Pinirampus pinirampu* (Spix), from Janauacá Lake near Manaus, Amazonas, Brazil. The new genus is characterized by its species having a sinistral nonsclerotized vagina opening anteriorly near the level of the copulatory complex, tandem gonads (testis postovarian), unmodified anchors and bars, undilated hook shanks, and a clockwise coiled cirral tube arising acutely from the cirral base.

Among monogeneans collected from Brazil during the past decade, two species of Ancyrocephalinae were discovered on the gills of the piranambu, *Pinirampus pinirampu* (Spix), Siluriformes, and were originally considered members of *Urocleidoides* sensu Mizelle, Kritsky, and Crane (1968). The revision of *Urocleidoides* by Kritsky, Thatcher, and Boeger (1986) has precluded these from the restricted genus. However, common morphologic features of the two species now justify the proposal of the new genus *Omothecium*.

The host was collected from Janauacá Lake near Manaus, Amazonas, Brazil, on 25 April 1984. Methods of host and parasite collection, preparation of helminths for study, measurement, and numbering of haptor hook pairs are as described by Kritsky, Thatcher, and Boeger (1986). Measurements are in micrometers; averages are followed by ranges in parentheses. Measurements of the cirrus include 1) the diameter of the proximal ring of the coil, depicted on the respective drawings as the interval between the solid straight lines, and 2) an approximation of total length of the cirrus obtained by using a Minerva curvimeter on camera lucida drawings. Type

specimens are deposited in the collections of the Instituto Nacional de Pesquisas da Amazônia (INPA), the U.S. National Museum Helminthological Collection (USNM), and the University of Nebraska State Museum (HWML) as indicated below.

Omothecium, new genus

Diagnosis.—Dactylogyridae, Ancyrocephalinae. Body divisible into cephalic region, trunk, peduncle, and haptor. Tegument thin, smooth. Head organs, cephalic lobes present; cephalic glands unicellular, comprising 2 bilateral groups posterolateral to pharynx. Eyes present. Mouth subterminal, midventral; pharynx muscular, glandular; esophagus present; intestinal caeca 2, confluent posterior to testis, lacking diverticula. Gonads tandem, intercaecal; testis postovarian. Vas deferens looping left intestinal crus; seminal vesicle a dilation of vas deferens; prostatic reservoir not observed. Cirrus comprising an ovate base from which coiled tube originates at acute angle, rings clockwise (Kritsky, Boeger, and Thatcher 1985). Accessory piece not articulated to cirrus, a fleshy rod serving as cirrus guide. Common genital pore midventral, at level of intestinal bifurcation. Oviduct short;

uterus delicate; seminal receptacle lying near anterior end of ovary; vagina weakly sclerotized, sinistral, opening anteriorly near level of copulatory complex. Vitellaria well developed, coextensive with gut. Haptor armed with dorsal and ventral pairs of unmodified anchors, ventral and dorsal bars, 7 pairs of hooks with ancyrocephaline distribution (Mizelle 1936); hooks with undilated shanks. Parasites of gills of siluriform fishes.

Type species, host, and locality.—*Omothecium pinirampi*, n. sp. from *Pinirampus pinirampu* (Spix), Pimelodidae, Janauacá Lake near Manaus, Amazonas, Brazil.

Other species.—*Omothecium luckyi*, n. sp. from *Pinirampus pinirampu* (Spix), Pimelodidae, Janauacá Lake, near Manaus, Amazonas, Brazil.

Etymology.—The generic name is from Greek (*ōmos* = shoulder + *thēkē* = case) and refers to the anterior position of the vaginal opening.

Remarks.—*Omothecium* is characterized by species possessing 1) a sinistral nonsclerotized vagina opening anteriorly near the level of the copulatory complex, 2) tandem gonads (testis postovarian), 3) unmodified anchors and bars, 4) undilated hook shanks, and 5) a clockwise cirrus tube arising from an acute angle from the cirrus base. *Omothecium* resembles *Cosmetocleithrum* Kritsky, Thatcher, and Boeger, 1986, by having species with tandem testes, unmodified anchors, and a sinistral vagina. The new genus differs from *Cosmetocleithrum* by lacking submedian posterior projections of the dorsal bar (present in *Cosmetocleithrum*), by having the vagina opening anteriorly on the left side (sinistral at level of ootype in *Cosmetocleithrum*), and by the nature of the copulatory complex.

Omothecium pinirampi, new species

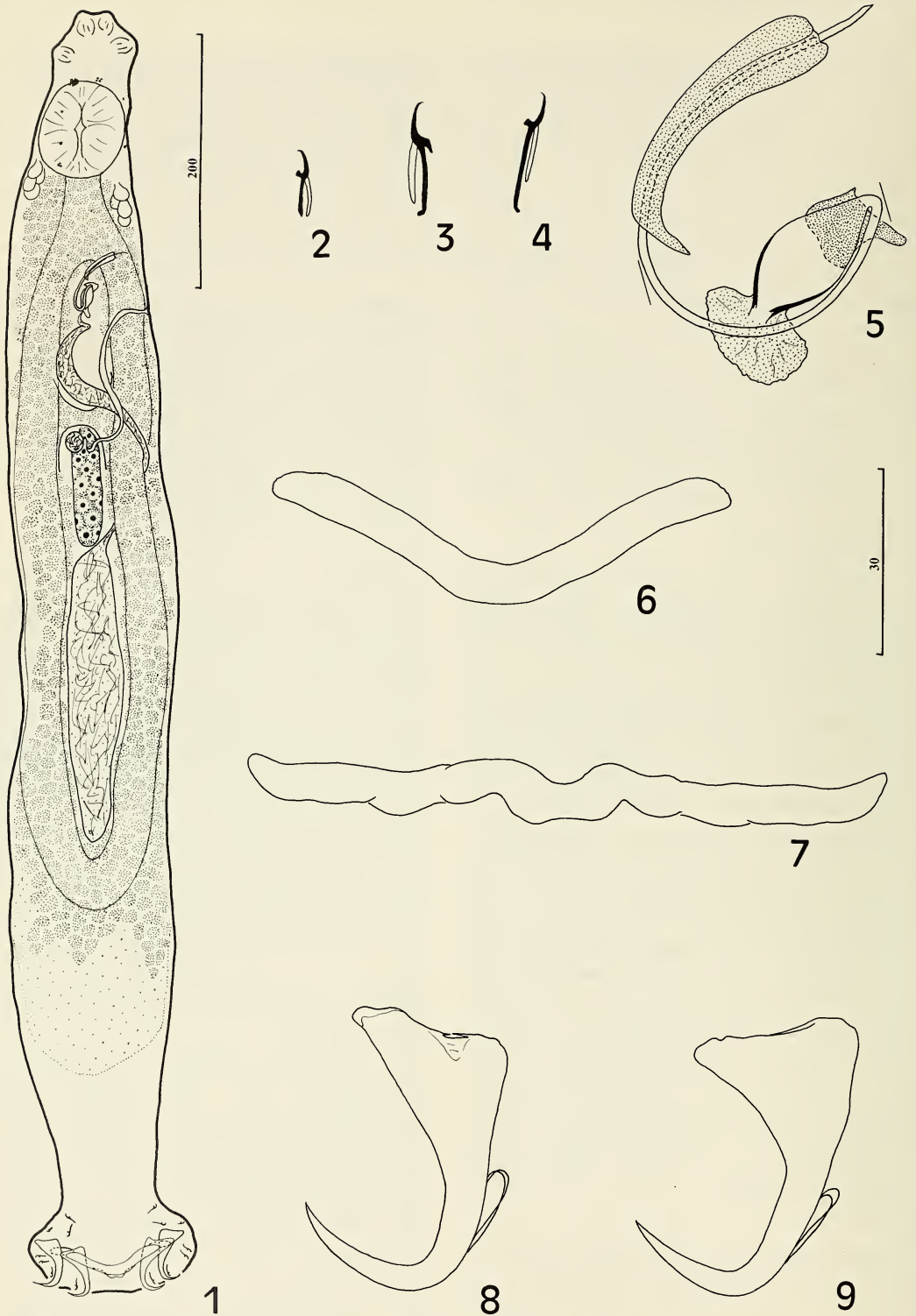
Figs. 1–9

Type specimens.—Holotype, INPA PA282-1; paratypes, USNM 78798, HWML 22972.

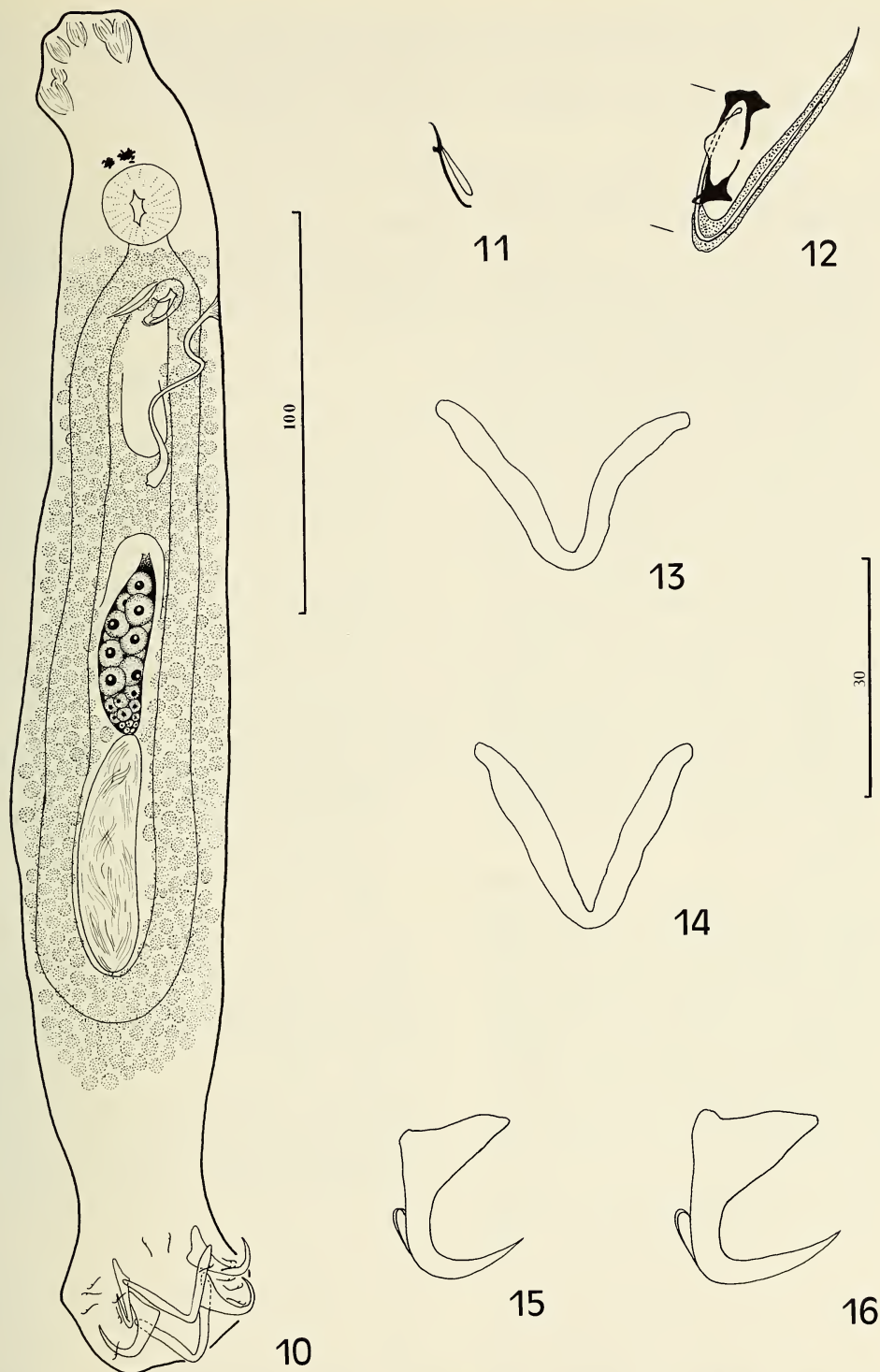
Description (based on 5 specimens).—Body fusiform, elongate with large glandular area posterior to limit of vitellaria; cephalic margin comprising 2 terminal, 2 bilateral cephalic lobes; 4 head organs, well developed; each group of cephalic glands comprising relatively few cells. Usually 2 eyes, submedial at anterior pharyngeal margin, frequently closely appressed giving appearance of single eye; eye granules small, subspherical; accessory granules distributed in cephalic and anterior trunk regions. Pharynx subspherical; esophagus short. Peduncle moderately elongate; haptor hexagonal. Anchors similar, each with poorly developed roots, large base, straight shaft, slightly curved point. Ventral bar shaped as expanded V; dorsal bar usually W-shaped, frequently flattened. Hook distribution ancyrocephaline, except members of hook pair 1 are situated submarginally on each side of the haptor. Hooks comprising 3 morphologic types; hook pairs 1, 3, 4, 7 with delicate point and shaft, slightly depressed thumb, elongate straight shank; pair 2 similar to previous pairs except shank length significantly reduced, erect thumb; pair 5, 6 with rapidly tapered shaft, strongly depressed thumb; FH loop shank length (pair 2), $\frac{4}{5}$ shank length (pairs 5, 6), $\frac{2}{3}$ shank length (remaining pairs). Cirrus comprising enlarged fusiform base with proximal flare, tube of about one complete ring. Accessory piece a cirrus guide, spatulate. Gonads bacilliform. Seminal vesicle a coiled dilation of vas deferens.

Measurements.—Body 952 (924–1004) long; greatest width 155 (129–189) near midlength. Greatest pharynx diameter 74 (68–78). Haptor 90 (73–112) long, 154 (122–185) wide. Ventral anchor 44 (41–47), base width 24 (20–27); dorsal anchor 41 (37–45), base width 26 (22–30). Ventral bar 44 (41–47); dorsal bar 36–37. Hook pair 2–9 (7–11), all others 16 (12–20). Cirrus 155–156 long, ring diameter 44 (41–47); accessory piece 36 (30–44). Testis 191 (143–240) × 54 (41–67); ovary 68 (53–82) × 37 (31–43).

Remarks.—*Omothecium pinirampi* is the



Figs. 1-9. *Omothecium pinirampi*: 1, Ventral view of holotype; 2, Hook pair 2; 3, Hook (pairs 5, 6); 4, Hook (pairs 1, 3, 4, 7); 5, Copulatory complex; 6, Ventral bar; 7, Dorsal bar; 8, Ventral anchor; 9, Dorsal anchor. All drawings are at the same scale (30 micrometers) except Fig. 1 (200 micrometers).



Figs. 10–16. *Omothecium luckyi*: 10, Holotype (ventral view); 11, Hook; 12, Copulatory complex; 13, Ventral bar; 14, Dorsal bar; 15, Ventral anchor; 16, Dorsal anchor. All figures are drawn to the 30-micrometer scale except Fig. 10 (100 micrometers).

type species for the genus and is named for its host.

Omothecium luckyi, new species
Figs. 10–16

Type specimens.—Holotype, INPA PA283-1; paratypes, USNM 78795, HWML 22973.

Description (based on 3 specimens).—Body fusiform; cephalic margin comprising 2 terminal, 2 bilateral poorly-developed cephalic lobes; head organs 4, poorly developed; cephalic glands inconspicuous. Eyes 2, closely associated, frequently appearing as single submedian eye at level of anterior pharyngeal margin; eye granules small, irregular to subspherical; accessory granules absent. Pharynx spherical; esophagus short. Peduncle broad, elongate; haptor subhexagonal. Anchors similar, each with poorly developed roots, large base, short straight shaft, slightly curved point. Bars similar, V-shaped. Hooks similar, each with fine point and shaft, erect thumb, delicate shank; FH loop $\frac{9}{10}$ shank length. Cirral base ovate with tissue flaps at each end, tube comprising a coil of less than one ring; accessory piece simple, serving as cirrus guide. Gonads subovate.

Measurements.—Body 375 (334–397) long, greatest width 54 (51–55) near mid-length. Pharyngeal diameter 22 (19–27). Haptor 50 (49–52) long, 54 (50–58) wide. Ventral anchor 19–20, base width 15–16; dorsal anchor 22 (20–23), base width 14–15. Ventral bar 29 (27–30); dorsal bar 24 (23–26). Hook (all pairs) 10–11. Cirrus 72–73 long, ring diameter 20–21; accessory piece 22–23.

Remarks.—This species differs from *O. pinirampi* by 1) possessing smaller sclero-

tized haptor structures, 2) the morphology of the dorsal bars (usually W-shaped in *O. pinirampi*; V-shaped in *O. luckyi*), and 3) the absence of different types of hooks in *O. luckyi*. *Omothecium luckyi* is named in honor of Dr. Z. Lucky, Faculty of Science, Brno, Czechoslovakia, who has greatly supported our studies on Neotropical Monogenea by providing specimens of his species collected from aquarium fishes in Czechoslovakia.

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